

10/510296 510,296

Rec'd PCT/PTO 06 OCT 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
16 October 2003 (16.10.2003)

PCT

(10) International Publication Number
WO 03/085695 A2(51) International Patent Classification⁷: H01J 61/00BAKEL, Ronald, A. [NL/NL]; c/o Prof. Holstlaan 6,
NL-5656 AA Eindhoven (NL).

(21) International Application Number: PCT/IB03/01433

(74) Agent: VAN WERMESKERKEN, Stephanie, C.; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(22) International Filing Date: 9 April 2003 (09.04.2003)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

Published:

— without international search report and to be republished upon receipt of that report

(30) Priority Data:
02076442.9 11 April 2002 (11.04.2002) EP
02077718.1 8 July 2002 (08.07.2002) EP

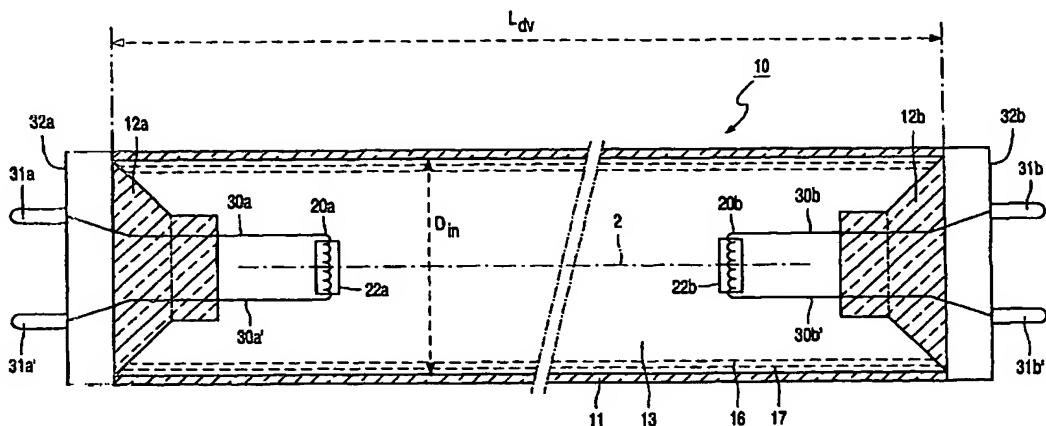
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): VAN DER POL, Adrianus, J., H., P. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); GEERDINCK, Leonie, M. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); VOSSEN, Engelbertus, C., P., M. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); SNIJKERS-HENDRICKX, Ingrid, J., M. [BE/BE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); BLASIG, Roland [DE/DE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); KRIJNEN, Simon [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); VAN DEN

(54) Title: LOW-PRESSURE MERCURY VAPOR DISCHARGE LAMP



WO 03/085695 A2

(57) Abstract: Low-pressure mercury vapor discharge lamp has an at least partly substantially cylindrical discharge vessel (10) with a length Ldv and with an internal diameter Din. The discharge vessel (10) encloses, in a gastight manner, a discharge space (13) provided with a inert gas mixture and with mercury. The discharge vessel (10) comprises discharge means (electrodes 20a; 20b) for maintaining a discharge in the discharge space (13). According to the invention, the ratio of the weight of mercury mHg in the discharge vessel (10) to the product of the internal diameter Din and the length of the discharge vessel Ldv is given by the relation: wherein C (0.01 (g/mm²). Preferably, 0.0005 (C (0.005 (g/mm². Preferably, the discharge vessel (10) contains less than 0.1 mg mercury. The discharge lamp according to the invention operates under unsaturated mercury conditions.